

## Claims

- [c1] We claim as our invention:
1. An iron golf club head comprising:  
a periphery member composed of a metal material, the periphery member having a sole wall, a toe wall extending upward from the sole wall at a first end of the sole wall, a hosel extending upward from the sole wall at a second end of the sole wall, and a heel wall extending upward from the sole wall, the sole wall having a width,  $W_s$ , ranging from 0.060 inch to 1.50 inches;  
a central member composed of a non-metal material, the central member having a body portion with a forward surface, a sole surface, a top surface, a toe surface, a heel surface and a flange extending from the top surface at an intersection of the top surface and the forward surface, the central member having a rear cavity defined by the body portion; and  
a face plate composed of a metal material, the face plate disposed over the forward surface of the central member, a top line of the face plate in contact with the flange of the central member.
  - [c2] 2. The iron golf club head according to claim 1 wherein the face plate is composed of a titanium alloy material and has a thickness ranging from 0.050 inch to 0.250 inch.
  - [c3] 3. The iron golf club head according to claim 1 wherein the central member is composed of a bulk molding compound.
  - [c4] 4. The iron golf club head according to claim 1 wherein the periphery member is composed of an iron-nickel-tungsten alloy having a density of  $8\text{g/cm}^3$  to  $11\text{g/cm}^3$ .
  - [c5] 5. The iron golf club head according to claim 1 wherein the club head has a moment of inertia  $I_{xx}$  through the center of gravity of at least  $2600\text{ g-cm}^2$ .
  - [c6] 6. The iron golf club head according to claim 1 wherein an upper end of the hosel is located below the top line of the face plate when the golf club head is in the address position.
  - [c7] 7. The iron golf club head according to claim 1 wherein the central member has

a volume percentage of the golf club head ranging from 10% to 50%, and a mass percentage of the golf club head ranging from 5% to 30%.

[c8] 8. The iron golf club head according to claim 1 wherein the periphery member has a volume percentage of the golf club head ranging from 15% to 40%, and a mass percentage of the golf club head ranging from 50% to 85%.

[c9] 9. The iron golf club head according to claim 1 wherein the club head has a moment of inertia  $I_{zz}$  through the center of gravity of at least  $2600 \text{ g-cm}^2$ .

[c10] 10. An iron golf club head comprising:  
a periphery member composed of an iron-nickel-tungsten alloy, the periphery member having a sole wall, a toe wall extending upward from the sole wall at a first end of the sole wall, a hosel extending upward from the sole wall at a second end of the sole wall, and a heel wall extending upward from the sole wall, the periphery member having a volume percentage of the golf club head ranging from 15% to 40%, and a mass percentage of the golf club head ranging from 50% to 85%;  
a central member composed of an epoxy resin with non-continuous carbon fibers, the central member having a body portion with a forward surface, a sole surface, a top surface, a toe surface, a heel surface and a flange extending from the top surface at an intersection of the top surface and the forward surface, the central member having a rear cavity defined by the body portion, the central member having a volume percentage of the golf club head ranging from 10% to 50%, and a mass percentage of the golf club head ranging from 5% to 30%; and  
a face plate composed of a titanium alloy, the face plate disposed over the forward surface of the central member, a top line of the face plate in contact with the flange of the central member.

[c11] 11. An iron golf club head comprising:  
a periphery member composed of a metal material, the periphery member having a sole wall, a toe wall extending upward from the sole wall at a first end of the sole wall, a hosel extending upward from the sole wall at a second end of the sole wall, and a heel wall extending upward from the sole wall, the sole wall having a width,  $W_s$ , ranging from 0.060 inch to 1.50 inches;

a central member composed of a non-metal material, the central member having a body portion with a forward surface, a sole surface, a top surface, a toe surface, a heel surface and a flange extending from the top surface at an intersection of the top surface and the forward surface, the central member having a rear cavity defined by the body portion; and

a face plate composed of a metal material, the face plate disposed over the forward surface of the central member, an upper perimeter of the face plate in contact with the flange of the central member;

wherein the club head has a moment of inertia  $I_{zz}$  through the center of gravity of at least  $2600 \text{ g-cm}^2$  and a moment of inertia  $I_{xx}$  through the center of gravity of at least  $2600 \text{ g-cm}^2$ .